

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P401450

Luminaire Tested: **ENC-SA1D-730-U-SL2**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401450  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENC-SA1D-730-U-SL2  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5079 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

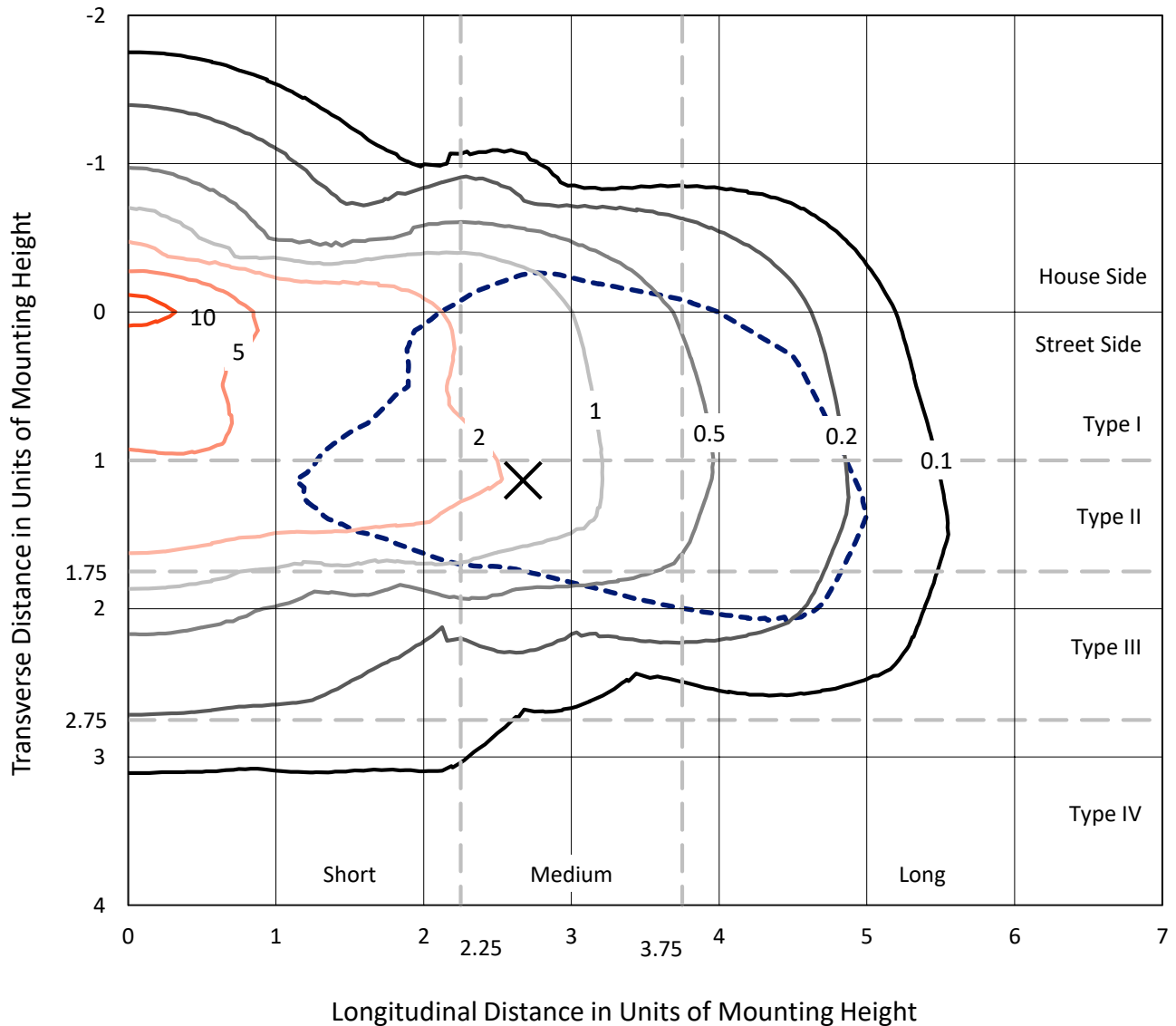


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

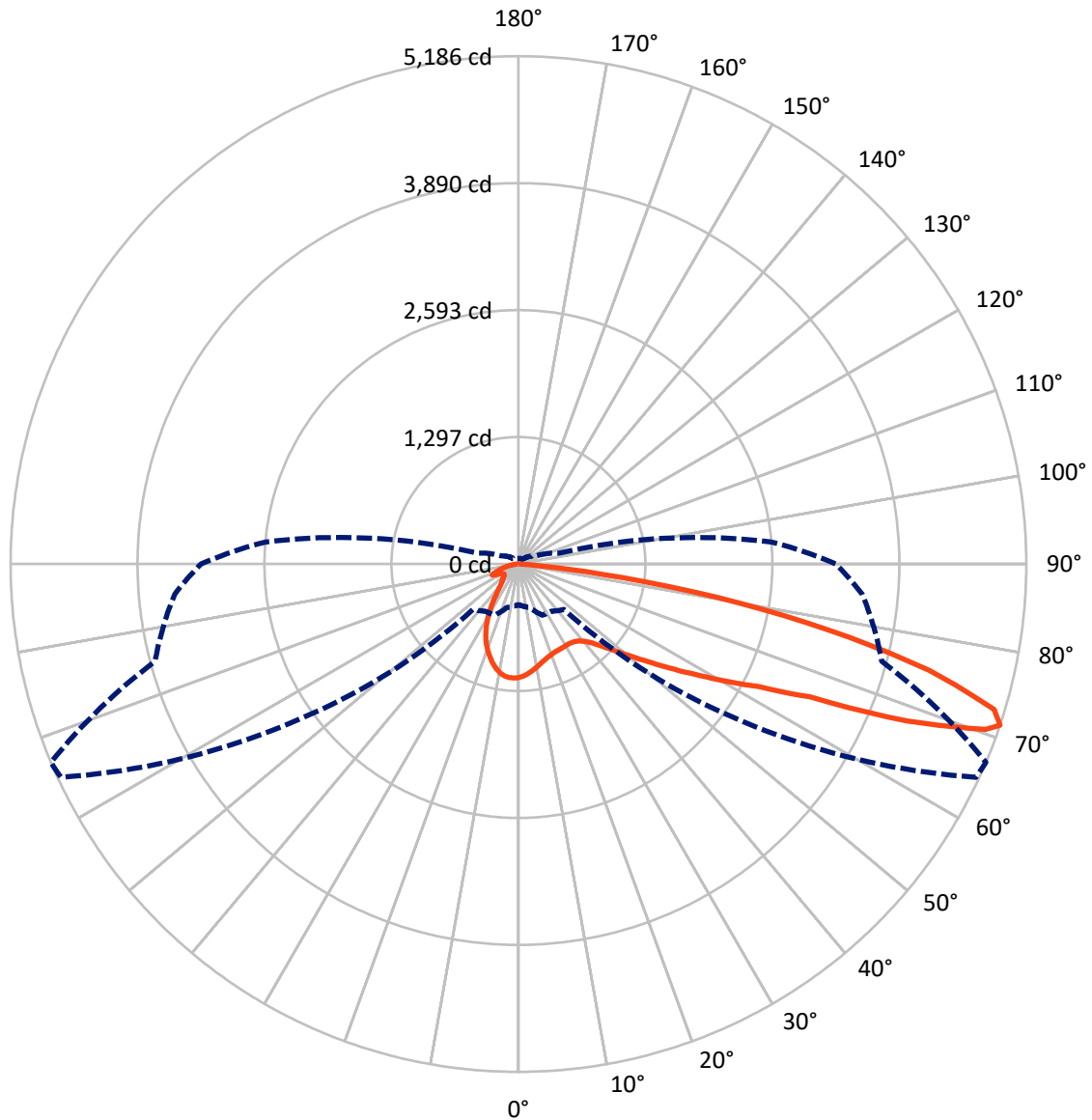


Based on 10 foot mounting height. Maximum calculated value = 11.6 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1040.5   | 0.0    | 1040.5 |
|                    | % Fixture | 20.5     | 0.0    | 20.5   |
| <b>Street Side</b> | Lumens    | 4038.5   | 0.0    | 4038.5 |
|                    | % Fixture | 79.5     | 0.0    | 79.5   |
| <b>Total</b>       | Lumens    | 5079.0   | 0.0    | 5079.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 102.6  | 2.0       |
| 10°-20°   | 252.2  | 5.0       |
| 20°-30°   | 340.5  | 6.7       |
| 30°-40°   | 448.5  | 8.8       |
| 40°-50°   | 638.8  | 12.6      |
| 50°-60°   | 975.8  | 19.2      |
| 60°-70°   | 1218.5 | 24.0      |
| 70°-80°   | 983.5  | 19.4      |
| 80°-90°   | 118.5  | 2.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-90°    | 5079.0 | 100.0     |
| 0°-180°   | 5079.0 | 100.0     |



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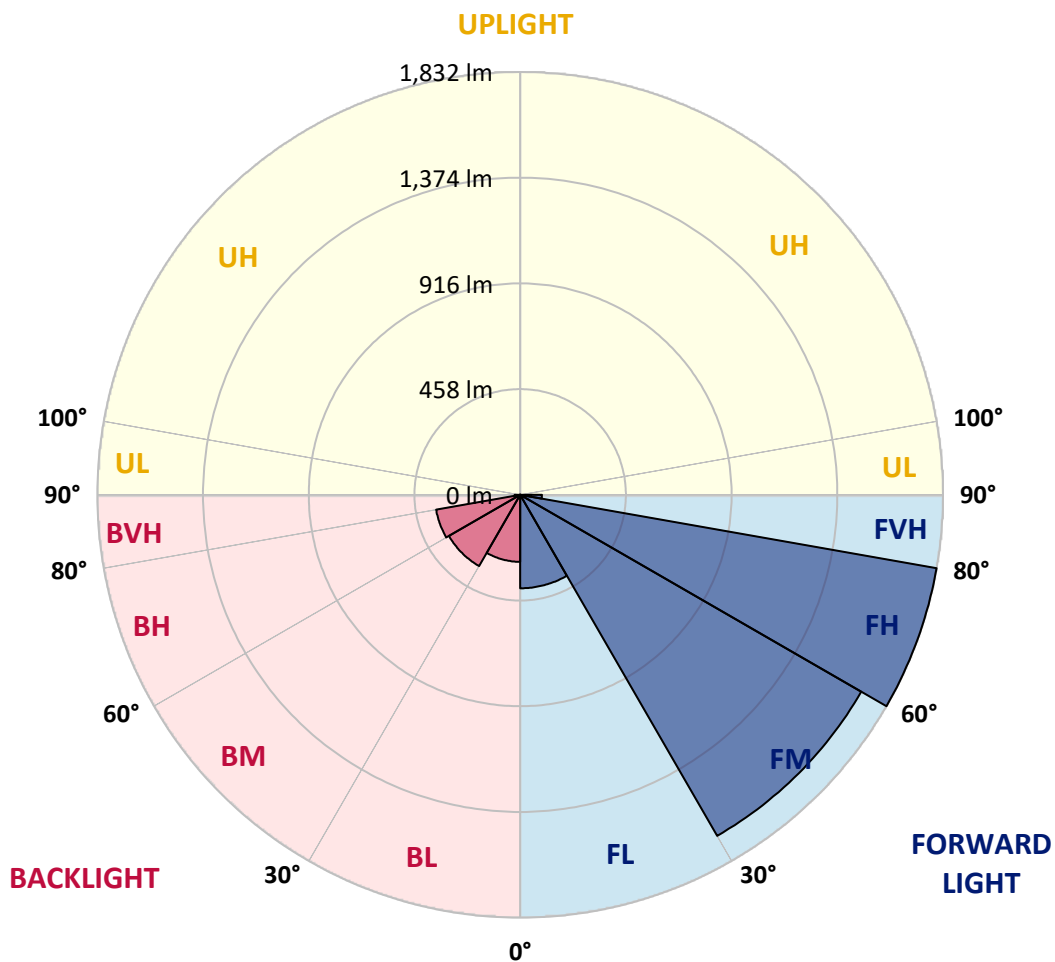
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 405.0  | 8.0       |                         |      |         |
| FM   | (30°-60°)   | 1706.6 | 33.6      |                         |      |         |
| FH   | (60°-80°)   | 1832.3 | 36.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 94.5   | 1.9       |                         |      | G1/100  |
| BL   | (0°-30°)    | 290.3  | 5.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 356.5  | 7.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 369.8  | 7.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 24.0   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 67°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 |
| 2.5°  | 1092.3 | 1097.5 | 1098.2 | 1108.4 | 1112.1 | 1123.8 | 1130.4 | 1141.3 | 1142.8 | 1149.4 | 1153.8 |
| 5°    | 1021.4 | 1022.2 | 1026.5 | 1035.3 | 1049.2 | 1070.4 | 1086.5 | 1113.5 | 1118.7 | 1137.7 | 1154.5 |
| 7.5°  | 957.8  | 961.5  | 968.8  | 981.9  | 998.0  | 1022.9 | 1047.7 | 1085.0 | 1092.3 | 1123.1 | 1155.2 |
| 10°   | 914.7  | 918.3  | 924.2  | 938.8  | 954.9  | 982.7  | 1012.6 | 1055.8 | 1063.8 | 1106.2 | 1153.0 |
| 12.5° | 880.3  | 884.0  | 888.4  | 904.4  | 922.0  | 949.8  | 980.5  | 1028.7 | 1036.8 | 1085.8 | 1147.9 |
| 15°   | 857.6  | 858.4  | 864.2  | 877.4  | 897.1  | 924.2  | 954.9  | 1004.6 | 1014.1 | 1069.7 | 1146.4 |
| 17.5° | 843.8  | 845.2  | 850.3  | 860.6  | 878.1  | 904.4  | 934.4  | 984.9  | 995.8  | 1056.5 | 1147.2 |
| 20°   | 844.5  | 845.9  | 848.9  | 852.5  | 865.0  | 887.6  | 919.1  | 970.2  | 981.2  | 1048.5 | 1152.3 |
| 22.5° | 859.8  | 860.6  | 861.3  | 856.2  | 860.6  | 876.7  | 907.4  | 960.0  | 971.7  | 1044.8 | 1158.1 |
| 25°   | 889.1  | 889.1  | 887.6  | 875.9  | 866.4  | 873.0  | 900.8  | 956.3  | 968.0  | 1041.9 | 1164.0 |
| 27.5° | 929.3  | 932.2  | 924.9  | 911.0  | 889.1  | 878.1  | 899.3  | 953.4  | 965.1  | 1041.9 | 1166.9 |
| 30°   | 984.1  | 985.6  | 982.7  | 964.4  | 928.6  | 898.6  | 903.7  | 951.2  | 962.9  | 1040.4 | 1167.7 |
| 32.5° | 1039.7 | 1044.1 | 1047.7 | 1031.7 | 988.5  | 935.1  | 921.3  | 954.2  | 964.4  | 1039.7 | 1165.5 |
| 35°   | 1096.0 | 1098.9 | 1116.5 | 1113.5 | 1066.8 | 990.0  | 949.8  | 965.9  | 974.6  | 1043.4 | 1166.9 |
| 37.5° | 1144.3 | 1150.8 | 1176.4 | 1196.2 | 1159.6 | 1064.6 | 998.8  | 991.4  | 996.6  | 1061.6 | 1175.0 |
| 40°   | 1196.2 | 1205.7 | 1243.7 | 1281.0 | 1264.9 | 1158.1 | 1068.2 | 1037.5 | 1036.0 | 1095.3 | 1194.7 |
| 42.5° | 1254.7 | 1265.6 | 1314.6 | 1368.7 | 1373.8 | 1277.3 | 1161.1 | 1102.6 | 1101.1 | 1153.0 | 1237.8 |
| 45°   | 1323.4 | 1333.6 | 1400.2 | 1464.5 | 1495.9 | 1410.4 | 1275.1 | 1194.7 | 1195.4 | 1233.5 | 1306.6 |
| 47.5° | 1408.2 | 1424.3 | 1488.6 | 1570.5 | 1626.8 | 1560.3 | 1413.3 | 1323.4 | 1317.5 | 1354.8 | 1419.2 |
| 50°   | 1527.4 | 1540.5 | 1593.9 | 1673.6 | 1772.3 | 1741.6 | 1587.3 | 1478.4 | 1474.0 | 1491.6 | 1569.8 |
| 52.5° | 1652.4 | 1656.8 | 1682.4 | 1765.0 | 1931.0 | 1961.7 | 1801.6 | 1670.7 | 1653.9 | 1663.4 | 1757.0 |
| 55°   | 1659.7 | 1669.2 | 1686.0 | 1790.6 | 2073.6 | 2225.6 | 2037.7 | 1897.3 | 1875.4 | 1868.8 | 1969.7 |
| 57.5° | 1507.6 | 1523.0 | 1544.9 | 1680.2 | 2079.4 | 2530.5 | 2373.3 | 2162.0 | 2122.5 | 2089.6 | 2197.1 |
| 60°   | 1185.2 | 1204.9 | 1245.2 | 1411.1 | 1931.0 | 2704.5 | 2933.4 | 2458.9 | 2423.8 | 2311.9 | 2419.4 |
| 62.5° | 856.9  | 865.0  | 903.7  | 978.3  | 1532.5 | 2714.8 | 3516.8 | 2846.4 | 2759.4 | 2528.3 | 2610.9 |
| 65°   | 690.2  | 703.4  | 715.1  | 714.3  | 907.4  | 2407.7 | 3904.4 | 3535.9 | 3273.4 | 2770.3 | 2821.5 |
| 67.5° | 568.8  | 573.2  | 601.7  | 651.5  | 617.1  | 1487.2 | 3943.1 | 4543.4 | 4277.2 | 3096.4 | 3071.6 |
| 70°   | 475.2  | 476.7  | 505.2  | 594.4  | 590.8  | 767.7  | 3306.3 | 5123.2 | 5058.8 | 3631.6 | 3462.7 |
| 71°   | 416.0  | 428.5  | 459.9  | 575.4  | 587.8  | 655.8  | 2809.1 | 5153.9 | 5186.1 | 3841.5 | 3523.4 |
| 72.5° | 327.6  | 327.6  | 372.2  | 527.9  | 593.0  | 605.4  | 2069.9 | 4986.5 | 5079.3 | 4079.8 | 3418.1 |
| 75°   | 192.3  | 190.8  | 215.0  | 367.8  | 606.1  | 603.2  | 1130.4 | 4144.2 | 4332.1 | 4123.0 | 3163.7 |
| 77.5° | 108.2  | 110.4  | 123.6  | 204.7  | 481.1  | 579.1  | 649.3  | 3017.5 | 3239.0 | 3448.8 | 2675.3 |
| 80°   | 49.7   | 52.6   | 62.1   | 99.4   | 283.7  | 500.1  | 463.6  | 1959.5 | 2043.6 | 2072.8 | 1264.2 |
| 82.5° | 13.2   | 14.6   | 19.0   | 38.0   | 109.7  | 340.7  | 342.9  | 820.4  | 847.4  | 489.9  | 271.3  |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 1.5    | 41.7   | 97.2   | 147.7  | 122.8  | 65.1   | 55.6   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 1.5    | 2.2    | 2.9    | 2.9    | 2.9    | 3.7    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 | 1158.1 |
| 2.5°  | 1157.4 | 1160.3 | 1165.5 | 1164.7 | 1163.3 | 1154.5 | 1159.6 | 1154.5 | 1153.8 | 1151.6 | 1152.3 |
| 5°    | 1160.3 | 1164.7 | 1167.7 | 1161.1 | 1150.1 | 1131.1 | 1124.5 | 1107.7 | 1096.7 | 1090.9 | 1088.0 |
| 7.5°  | 1164.7 | 1167.7 | 1166.2 | 1147.9 | 1119.4 | 1083.6 | 1052.9 | 1028.7 | 1003.1 | 998.8  | 997.3  |
| 10°   | 1164.7 | 1167.7 | 1156.0 | 1120.9 | 1071.9 | 1015.6 | 968.8  | 929.3  | 889.8  | 875.2  | 877.4  |
| 12.5° | 1161.8 | 1163.3 | 1136.2 | 1079.9 | 1009.0 | 932.2  | 866.4  | 801.3  | 750.9  | 720.2  | 714.3  |
| 15°   | 1159.6 | 1157.4 | 1109.9 | 1028.7 | 934.4  | 839.4  | 739.9  | 652.2  | 592.2  | 552.0  | 546.9  |
| 17.5° | 1159.6 | 1151.6 | 1078.5 | 970.2  | 853.3  | 722.4  | 590.8  | 495.7  | 429.2  | 405.8  | 405.1  |
| 20°   | 1161.1 | 1143.5 | 1044.8 | 909.6  | 752.4  | 583.5  | 440.9  | 359.7  | 334.9  | 331.2  | 331.9  |
| 22.5° | 1162.5 | 1132.6 | 1008.3 | 840.8  | 639.8  | 435.0  | 315.1  | 285.9  | 288.1  | 296.8  | 296.1  |
| 25°   | 1161.1 | 1117.9 | 965.1  | 764.1  | 516.9  | 313.7  | 254.4  | 247.1  | 260.3  | 270.5  | 273.5  |
| 27.5° | 1157.4 | 1098.9 | 919.1  | 672.7  | 394.1  | 247.1  | 222.3  | 221.5  | 234.7  | 244.2  | 243.5  |
| 30°   | 1146.4 | 1076.3 | 865.7  | 576.1  | 284.4  | 210.6  | 200.3  | 202.5  | 211.3  | 220.1  | 220.1  |
| 32.5° | 1134.7 | 1050.7 | 809.4  | 470.9  | 218.6  | 190.8  | 187.2  | 187.9  | 193.8  | 200.3  | 199.6  |
| 35°   | 1122.3 | 1025.8 | 751.6  | 361.2  | 191.6  | 179.1  | 177.7  | 176.9  | 179.1  | 180.6  | 180.6  |
| 37.5° | 1115.0 | 1003.9 | 688.0  | 272.0  | 176.9  | 171.8  | 168.9  | 166.0  | 165.2  | 163.8  | 162.3  |
| 40°   | 1117.9 | 989.3  | 626.6  | 210.6  | 168.2  | 163.8  | 159.4  | 155.0  | 152.1  | 150.6  | 149.9  |
| 42.5° | 1138.4 | 984.9  | 558.6  | 181.3  | 160.1  | 156.5  | 150.6  | 143.3  | 140.4  | 140.4  | 139.7  |
| 45°   | 1185.9 | 998.0  | 495.0  | 166.7  | 152.8  | 148.4  | 138.9  | 133.8  | 131.6  | 132.3  | 132.3  |
| 47.5° | 1260.5 | 1035.3 | 438.0  | 159.4  | 147.7  | 141.1  | 130.1  | 125.0  | 123.6  | 124.3  | 124.3  |
| 50°   | 1372.4 | 1105.5 | 379.5  | 152.8  | 141.8  | 133.1  | 123.6  | 117.7  | 115.5  | 115.5  | 115.5  |
| 52.5° | 1536.2 | 1221.0 | 337.1  | 148.4  | 136.7  | 126.5  | 117.0  | 110.4  | 107.5  | 107.5  | 106.7  |
| 55°   | 1735.8 | 1371.6 | 321.0  | 145.5  | 130.1  | 120.6  | 110.4  | 103.8  | 99.4   | 98.0   | 98.7   |
| 57.5° | 1954.4 | 1566.9 | 344.4  | 144.8  | 122.8  | 114.1  | 103.8  | 95.8   | 91.4   | 90.7   | 89.9   |
| 60°   | 2179.6 | 1760.6 | 411.6  | 141.1  | 117.0  | 106.0  | 96.5   | 89.2   | 84.8   | 83.4   | 82.6   |
| 62.5° | 2374.1 | 1953.6 | 522.8  | 138.2  | 112.6  | 98.7   | 88.5   | 81.9   | 78.2   | 76.0   | 76.0   |
| 65°   | 2608.8 | 2175.2 | 692.4  | 141.8  | 110.4  | 91.4   | 81.2   | 75.3   | 72.4   | 70.2   | 70.2   |
| 67.5° | 2929.0 | 2503.5 | 821.1  | 159.4  | 115.5  | 85.5   | 73.1   | 68.7   | 66.5   | 65.1   | 65.1   |
| 70°   | 3244.1 | 2687.7 | 571.0  | 187.2  | 128.7  | 80.4   | 65.8   | 62.9   | 61.4   | 60.0   | 60.0   |
| 71°   | 3239.7 | 2589.0 | 429.2  | 193.8  | 133.1  | 79.0   | 62.9   | 60.7   | 59.2   | 58.5   | 57.8   |
| 72.5° | 3077.4 | 2353.6 | 307.8  | 187.9  | 130.9  | 74.6   | 59.2   | 57.0   | 55.6   | 55.6   | 54.8   |
| 75°   | 2760.1 | 2074.3 | 240.5  | 157.2  | 109.7  | 66.5   | 52.6   | 51.2   | 49.7   | 49.0   | 49.7   |
| 77.5° | 2261.5 | 1659.7 | 189.4  | 124.3  | 83.4   | 54.8   | 46.8   | 44.6   | 43.9   | 43.1   | 43.9   |
| 80°   | 1039.0 | 723.1  | 138.2  | 96.5   | 62.1   | 43.9   | 39.5   | 38.8   | 38.0   | 37.3   | 37.3   |
| 82.5° | 250.1  | 202.5  | 73.8   | 64.3   | 42.4   | 33.6   | 31.4   | 31.4   | 31.4   | 30.7   | 30.7   |
| 85°   | 54.8   | 54.8   | 30.0   | 30.0   | 25.6   | 23.4   | 24.9   | 24.9   | 24.9   | 23.4   | 23.4   |
| 87.5° | 2.9    | 8.8    | 9.5    | 13.9   | 14.6   | 13.9   | 16.8   | 17.5   | 16.8   | 16.1   | 15.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)